

Supplemental Groundwater Use in the Walker River Basin



Nevada Division of Water Resources

Lyon County Library
Yerington, NV
April 20, 2010



Introductions

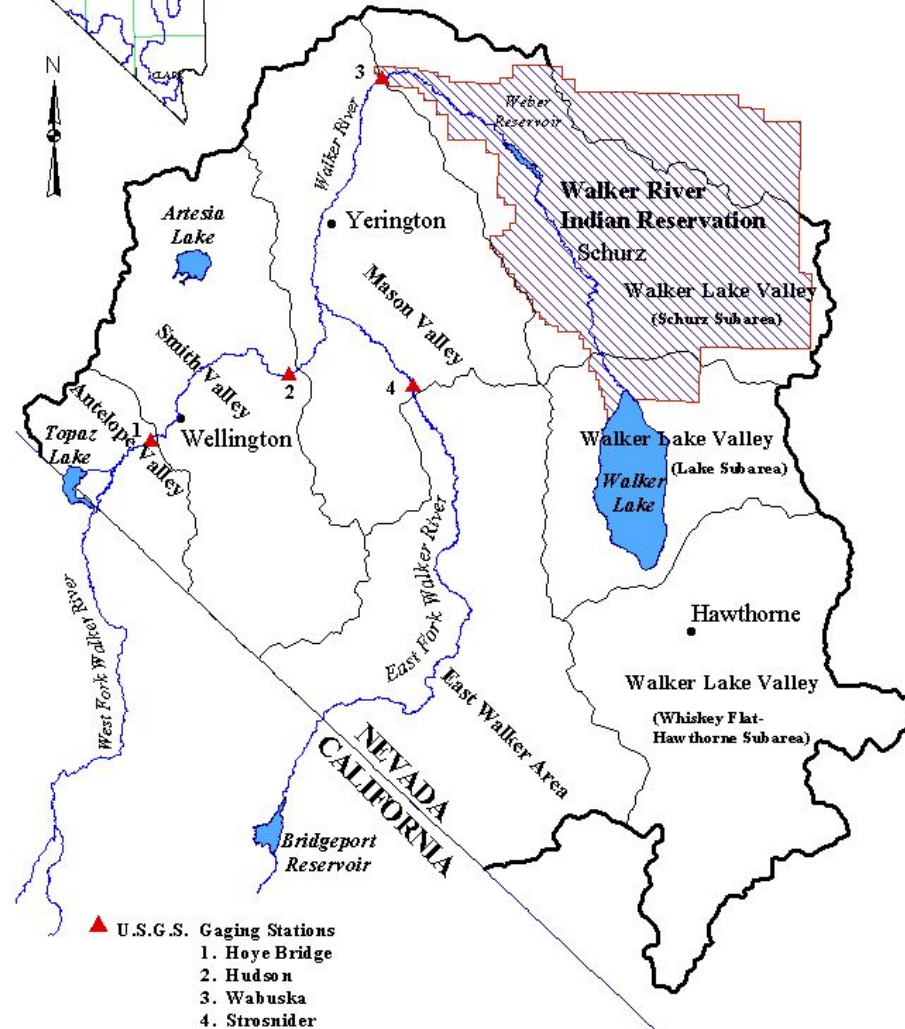
- **Jason King, State Engineer**
- **Kelvin Hickenbottom, Deputy State Engineer**
- **Tom Gallagher, Chief of Water Rights**
- **Mike Randall, Supervising Engineer**
- **Keith Conrad, Basin Engineer**

TOPICS

- General Overview of Project Area
- NDWR Work
 - Inventories and Orders
- Walker River Basin Project
 - Groundwater Regulation
 - NDWR
 - Surface Water Regulation & Delivery
 - Federal Water Master
 - Walker River Irrigation District (WRID)
- Answer Questions
 - Identify Additional Issues

WALKER RIVER WATERSHED IN NEVADA

Study
Area



- ▲ U.S.G.S. Gaging Stations
1. Hoyer Bridge
2. Hudson
3. Wabuska
4. Strosnider

— Walker River Basin Region
— Interior Basins

6 0 6 12 Miles
Scale 1:500,000

Office of the State Engineer of Nevada
Division of Water Resources
123 W. Nye Lane
Carson City, Nevada 89706
September 2003

Mason and Smith Valley Water Use Inventories

- **From 1994 to present, the water use from the wells in these two basins has been estimated by direct and indirect means.**
- **From 2000 to present, flow meters have been required on all non-domestic use wells.**
- **Considerable staff time is spent in Mason and Smith Valleys to collect water levels and water use data**

Smith and Mason Valley Effort

- **Considerable staff time is also spent talking with and listening to water users in the field to better understand basin hydrology and how their water rights are used**

Smith Valley Orders

- **1960 - Order 245 designated Smith Valley GW basin**
- **1961- Order 253 required the installation of measuring devices**
- **1977- Denied irrigation because it may impair existing rights and/or deplete the GW basin**
- **1997- Order 1126 limited new appropriations to Com, Ind and Stk for 1800 gpd or less**
- **2000- Order 1159 required totalizing meters to be installed and maintained on all wells**

Mason Valley Orders

- **1977 – Order 627 designated Mason Valley GW basin**
- **1977- Denied irrigation because it may impair existing rights and/or deplete the GW basin**
- **1997-Order 1125 limited new appropriations to Com, Ind and Stk for 1800 gpd or less**
- **2000- Order 1158 required totalizing meters to be installed and maintained on all wells**

Groundwater Rights

- **Regulation of ALL Groundwater is done by DWR**
- **Supplemental Groundwater Rights**
 - What are supplemental rights?
 - Where are they located?
 - What happens when surface water is sold/leased?

Supplemental Use

- **Supplemental Rights**
 - two or more rights used together for an intended use.
- **Walker River**
 - Supplemental groundwater rights have been issued to supplement Walker River surface water

Supplemental Use

(continued)

- **Supplemental groundwater rights are intended to be pumped when there is not a full allocation of Walker River decreed water and/or storage rights**
- **In a year that isn't a 'full allocation' year, any available surface water is to be used before the supplemental groundwater can be pumped – and then only enough to meet the permitted acre-feet per acre duty**

Supplemental Use

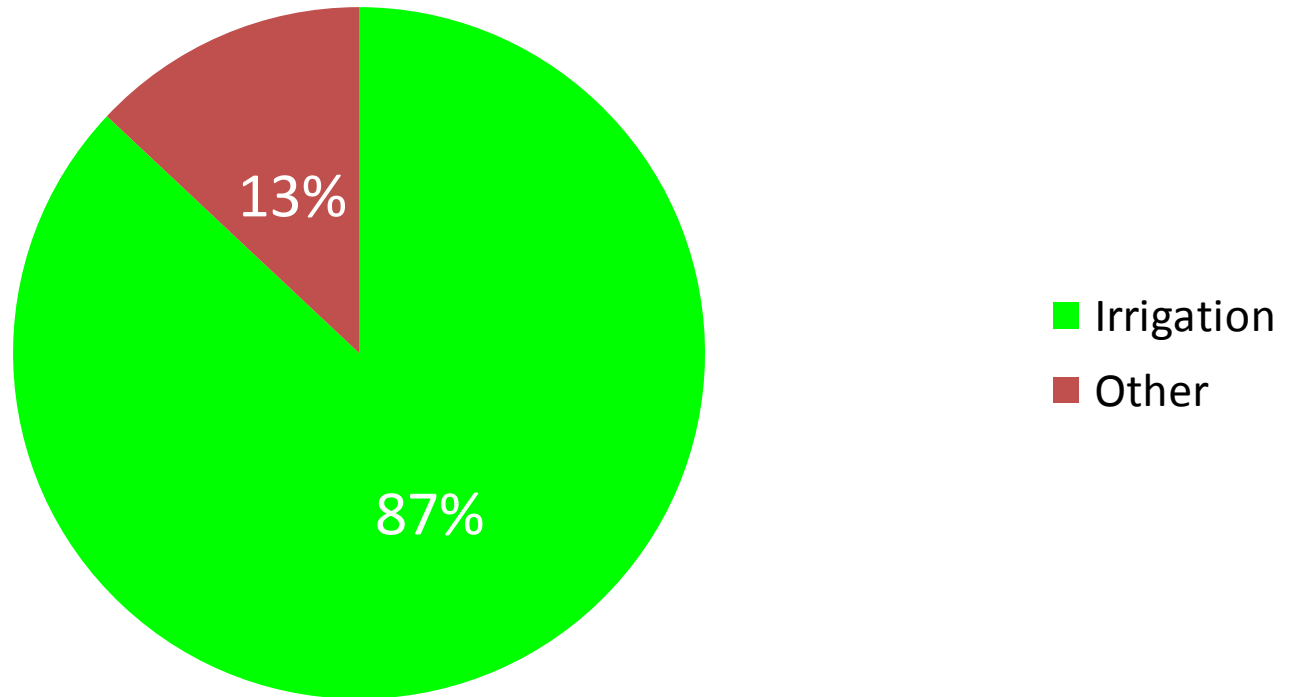
(continued)

- **Limitations**
 - **Supplemental groundwater rights are not stand alone water rights**
 - **If surface water is transferred from the land the supplemental groundwater rights must be withdrawn or transferred**

Groundwater

(Smith and Mason Valley Basins)

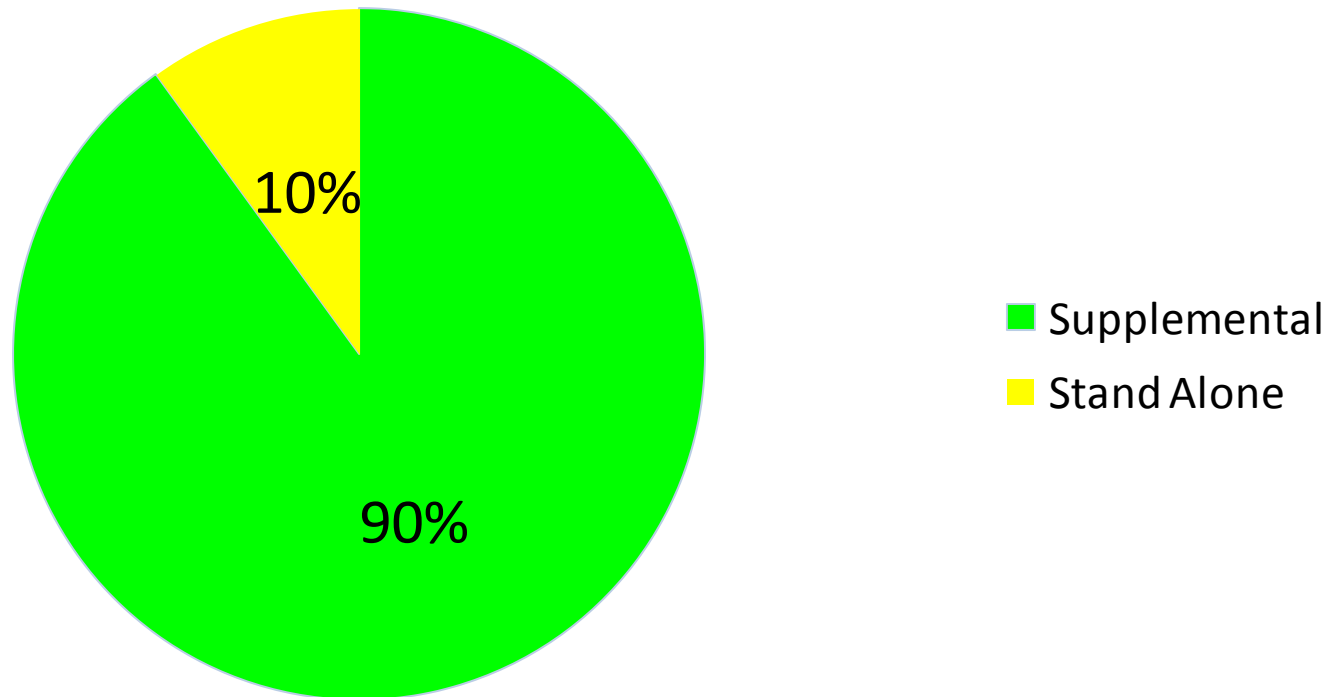
Groundwater Usage by Manner of Use



Groundwater

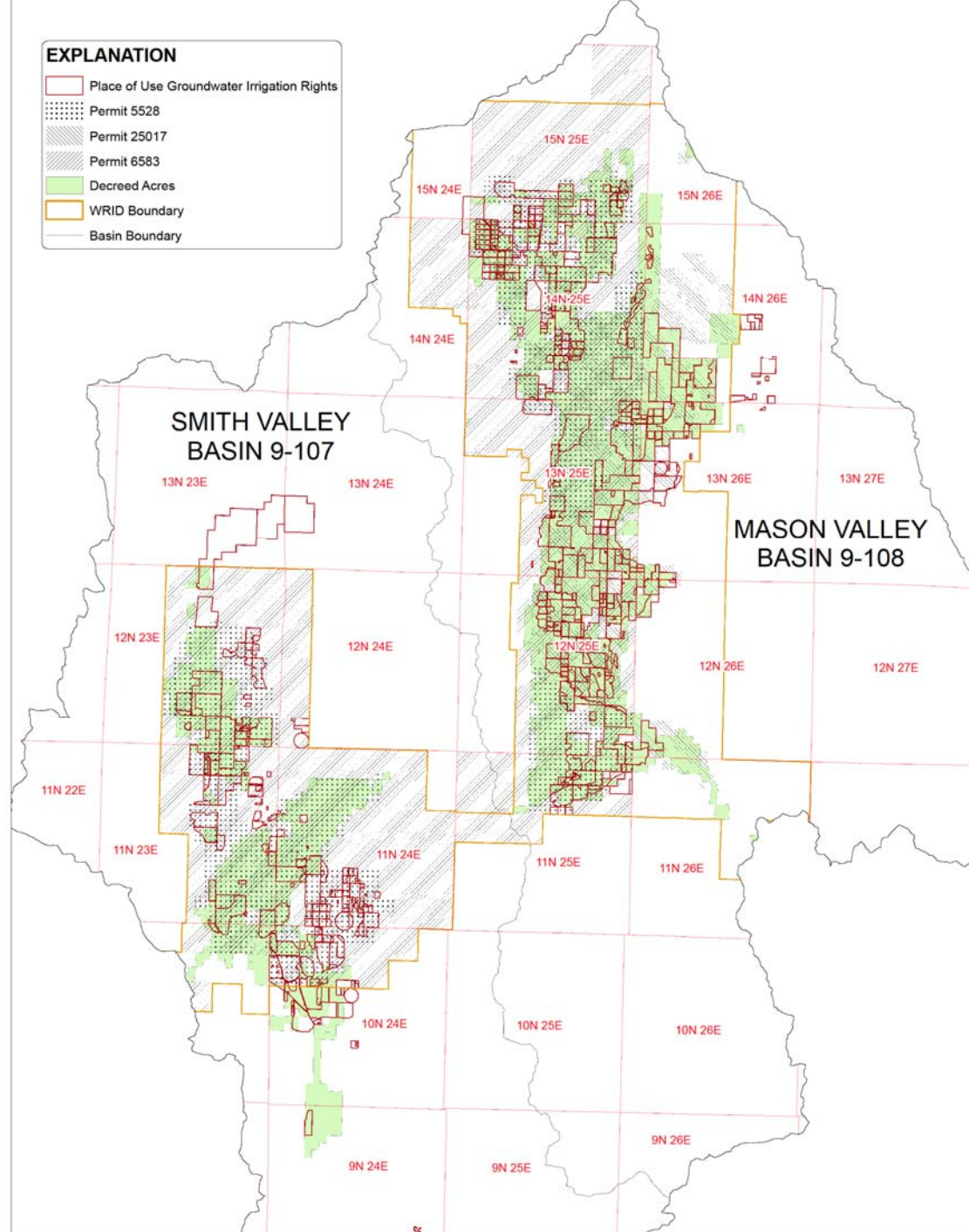
(Smith and Mason Valley Basins)

Irrigation Water Supplemental to Surface Water



EXPLANATION

- Place of Use Groundwater Irrigation Rights
- Permit 5528
- Permit 25017
- Permit 6583
- Decreed Acres
- WRID Boundary
- Basin Boundary



Walker River Surface Water

- **Selling Surface Water to the Project**
 - **Stripping the land of water**
 - Land must go fallow
 - Water from adjacent property cannot be spread to stripped land
 - Supplemental Groundwater cannot be used on stripped land
 - Change Application filed with NDWR
 - Court must approve

Walker River Surface Water

- **Leasing Surface Water to the Project**
 - **WRID's managing the lease program**
 - **Change Application filed with NDWR**
 - **Court must approve**
 - **Water cannot be used for irrigation during period of lease**



Example of Water Right Process



Example of Process

- 1. Water is sold or leased to National Fish and Wildlife Foundation (NFWF)**
- 2. A change application is filed with Division of Water Resources (DWR) to move water from existing place of use (POU) to Walker Lake**
- 3. Along with the change application, a map showing the land being stripped of the Walker River water MUST be submitted**
- 4. Change application shall be processed by DWR**
 - Documentation of all water on property will expedite process**

Example of Process

5. A major part of the DWR review will be to identify any supplemental groundwater rights appurtenant to the land proposed to be stripped.
6. If supplemental groundwater exists, and before a permit is issued, reconciliation of the status of the supplemental groundwater right will occur, i.e.
 - Is the groundwater right being withdrawn?
 - Is the groundwater right being transferred?

Example of Process

7. If the application is permitted, the court must then approve the decision before water can be transferred. It's the applicant's responsibility to initiate the court proceedings.
8. Once the court approves the transfer, DWR staff will be field investigating the POU to ensure that the land is fallow. If the POU had supplemental groundwater, staff will also visit the well site to ensure no water is being delivered to the supplemental ground.

Example of Process

9. If it is found that the fallowed ground is being irrigated,
 - Immediately phone calls will be made and letters will be sent to the landowner inquiring why the ground is not fallow.
 - Communications with WRID, Federal Water Master and NFWF will begin immediately in order to identify possible reasons why the ground is not fallow.
10. If it is found that groundwater is being illegally diverted, all measures necessary to bring into compliance will be undertaken.

SUMMARY

- **Surface Water**
 - When the surface water is sold and the land has no primary rights appurtenant, no irrigation on that land can continue
 - When water is leased, and the land has no primary rights appurtenant, no irrigation on that land can continue for the duration of the lease
- **Stripping map is required showing acreage where appurtenant water is being sold or leased**

SUMMARY

(Continued)

- **Supplemental Groundwater**
 - **Cannot be used as a stand alone water right**
- **Violations of Nevada Water Law are subject to fines and penalties**
 - **Replacement of water up to 200%**
 - **\$10,000 per day fine per violation**

Thank You, Any Questions?

<http://water.nv.gov>

